

CHAPTER 445A

WATER CONTROLS

UNDERGROUND INJECTION CONTROL

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UNDERGROUND INJECTION CONTROL

Definitions

NAC 445A.810 Definitions. (NRS 445A.425) As used in NAC 445A.810 to 445A.925, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.811 to 445A.840, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.811 "Application" defined. (NRS 445A.425) "Application" means the form provided by the division that is used to apply for a permit for underground injection, including any modifications of or additions to the form.

(Added to NAC by Environmental Comm'n, eff. 10-21-87; A by R042-01, 10-25-2001)

NAC 445A.812 "Aquifer" defined. "Aquifer" means a geological formation, group of formations or part of a formation capable of yielding a significant amount of water to a well or spring.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4221)

NAC 445A.813 "Area of review" defined. "Area of review" means the area surrounding an injection well as determined pursuant to NAC 445A.897 and 445A.898.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42215)

NAC 445A.814 "Casing" defined. "Casing" means a pipe or tubing which is lowered into a borehole during or after drilling to:

1. Support the sides of the hole and prevent the walls from collapsing;
2. Prevent loss of drilling mud into porous ground; or
3. Prevent water, gas or other fluids from entering or leaving the hole.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4222)

NAC 445A.815 "Catastrophic collapse" defined. "Catastrophic collapse" means a sudden and complete failure of overlying strata caused by the removal of underlying materials.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42225)

NAC 445A.816 "Cementing" defined. Cementing" means the pumping of cement into a drilled hole or the forcing of cement behind the casing.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4223)

NAC 445A.8163 "Cesspool" defined. (NRS 445A.425) "Cesspool" means a drywell which receives untreated sanitary waste containing human excreta and which may have an open bottom or perforated sides, or both.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8167 “Community water system” defined. (NRS 445A.425) “Community water system” has the meaning ascribed to it in 40 C.F.R. § 144.86(d), as that section existed on July 1, 2000.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.817 “Confining zone” defined. “Confining zone” means a geological formation, group of formations or part of a formation capable of limiting the movement of fluids from a zone of injection.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42235)

NAC 445A.818 “Contaminant” defined. “Contaminant” has the meaning ascribed to it in NRS 445A.325.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.4224)

NAC 445A.819 “Degrade” defined. “Degrade” means to cause or create an increase in the amount or concentration of any substance in an underground source of drinking water to an extent that:

1. A regulation prescribing standards for primary drinking water is violated; or
2. The director finds that the existing or potential municipal, industrial, domestic or agricultural use of that water is impaired.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42245)

NAC 445A.8195 “Delineate” defined. (NRS 445A.425) “Delineate” means the first step in the assessment process pursuant to which the boundaries of a ground water protection area are identified as a part of the source water assessment and protection program of this state.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.820 “Department” defined. “Department” means the state department of conservation and natural resources.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.4225)

NAC 445A.821 “Director” defined. “Director” means the director of the department or his designated agent.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42255)

NAC 445A.8213 “Division” defined. (NRS 445A.425) “Division” means the division of environmental protection of the department.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.8217 “Drywell” defined. (NRS 445A.425) “Drywell” means a well, other than an improved sinkhole or a subsurface fluid distribution system, that is completed above the water table so that the bottom and sides of the well are typically dry except when receiving fluids.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.822 “Fault” defined. “Fault” means a surface or zone of fractured rock along which displacement has occurred.

(Added to NAC by Environmental Comm’n, eff. 10-21-87)—(Substituted in revision for NAC 445.4226)

NAC 445A.823 “Fluid” defined. “Fluid” means any material or substance which flows or moves whether in a semisolid, liquid, sludge, gaseous or other form or state.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42265)

NAC 445A.824 “Formation” defined. “Formation” means a body of rock characterized by a degree of lithologic homogeneity which is prevailingly tabular and is mappable on the earth’s surface or traceable in the subsurface.

(Added to NAC by Environmental Comm’n, eff. 10-21-87)—(Substituted in revision for NAC 445.4227)

NAC 445A.825 “Ground water” defined. “Ground water” means water below the surface of the land which is in a zone of saturation.

(Added to NAC by Environmental Comm’n, eff. 10-21-87)—(Substituted in revision for NAC 445.42275)

NAC 445A.8255 “Ground water protection area” defined. (NRS 445A.425) “Ground water protection area” means a geographic area that is:

1. Near to or surrounding public water wells, including, without limitation, community water systems and nontransient noncommunity water systems that use ground water as a source of drinking water; and
2. Delineated as a ground water protection area pursuant to the source water assessment and protection program of this state.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.826 “Hazardous waste” defined. (NRS 445A.425) “Hazardous waste” means a waste defined as such under the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq., as those sections existed on June 1, 2001.

(Added to NAC by Environmental Comm’n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.8263 “Improved sinkhole” defined. (NRS 445A.425) “Improved sinkhole” means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings that has been modified by man to direct or emplace fluid into the subsurface.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.8267 “Injection” defined. (NRS 445A.425) “Injection” means the subsurface emplacement of fluids through a well.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.827 “Injection well” defined. (NRS 445A.425) “Injection well” means a well used for the subsurface emplacement of fluids, except fluids associated with active drilling.

(Added to NAC by Environmental Comm’n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.828 “Mechanical integrity” defined. “Mechanical integrity” means a condition of an injection well where there is:

1. No significant leakage in the casing, tubing or packer; and
2. No significant movement of a fluid into an underground source of drinking water through vertical channels adjacent to the well bore.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.4229)

NAC 445A.8282 “Motor vehicle waste disposal well” defined. (NRS 445A.425) “Motor vehicle waste disposal well” means a well that receives or has received fluids from the repair and maintenance of vehicles, including, without limitation, fluids from an auto body repair shop, an automotive repair shop, a new or used car dealership, a specialty repair shop or any other facility that repairs or maintains vehicles.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.8285 “Nontransient noncommunity water system” defined. (NRS 445A.425) “Nontransient noncommunity water system” has the meaning ascribed to it in 40 C.F.R. § 144.86(e), as that section existed on July 1, 2000.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.8287 “Other sensitive ground water area” defined. (NRS 445A.425) “Other sensitive ground water area” means an area which has been identified as critical to protecting underground sources of drinking water from contamination, but which has not been delineated as a ground water protection area.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.829 “Packer” defined. “Packer” means a device lowered into a well to produce a seal which is fluid-tight.

(Added to NAC by Environmental Comm’n, eff. 10-21-87)—(Substituted in revision for NAC 445.42295)

NAC 445A.830 “Permit” defined. “Permit” means an authorization, license or other document which is issued by the director to carry out the provisions of NAC 445A.810 to 445A.925, inclusive.

(Added to NAC by Environmental Comm’n, eff. 10-21-87)—(Substituted in revision for NAC 445.423)

NAC 445A.831 “Person” defined. “Person” means a natural person, association, partnership, corporation, governmental entity or an agent or employee thereof.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42305)

NAC 445A.832 “Plugging” defined. “Plugging” means the stoppage of the flow of water, oil or gas into or from a formation through a borehole or well penetrating that formation.

(Added to NAC by Environmental Comm’n, 10-21-87)—(Substituted in revision for NAC 445.4231)

NAC 445A.833 “Radioactive waste” defined. “Radioactive waste” means any waste which contains radioactive material in concentrations which exceed those listed in 10C.F.R. Part 20, Appendix B, Table II Column 2.

(Added to NAC by Environmental Comm’n, eff. 10-21-87)—(Substituted in revision for NAC 445.42315)

NAC 445A.8332 “Sanitary waste” defined. (NRS 445A.425) “Sanitary waste” means liquid or solid wastes originating solely from humans and human activities, including, without limitation, wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, operations for washing clothing, and sinks or machines used for washing dishes, glasses and utensils used to serve food or beverages. The sources of such waste include, without limitation:

1. Single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds and day-use recreation areas; and
2. Commercial and industrial facilities, so long as the waste is not mixed with industrial waste.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.8335 “Septic system” defined. (NRS 445A.8335) “Septic system” means a well that is used to emplace sanitary waste below the surface and is typically composed of a septic tank and a subsurface fluid distribution system or disposal system.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.8337 “Source water assessment and protection program” defined. (NRS 445A.425) “Source water assessment and protection program” means a program designed by the bureau of health protection services of the health division of the department of human resources to protect drinking water sources which is developed in accordance with 42 U.S.C. § 300j-13, as that section existed on July 1, 2000, and pursuant to which ground water protection areas are delineated by conducting local assessments for each public water system, including, without limitation:

1. Delineating the boundaries of the areas providing source waters for public water systems;
2. Identifying significant potential sources of contaminants in such areas;
3. Determining the susceptibility of public water systems in delineated areas to those sources of contaminants; and
4. Making information concerning the assessment process available to the public.

(Added to NAC by Environmental Comm’n by R042-01, eff. 10-25-2001)

NAC 445A.834 “Stimulation of a well” defined. “Stimulation of a well” means the following processes used to clean the well bore, enlarge a channel and increase the porosity in the interval to be injected:

1. Surging;
2. Jetting;
3. Blasting;
4. Treatment with acid; and
5. Hydraulic fracturing.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.4232)

NAC 445A.835 “Subsidence” defined. “Subsidence” means a lowering of the surface of natural land which is caused by:

1. The movement of the earth;
2. A lowering of the pressure of fluids;
3. The removal of underlying supporting material by mining or solution of solids, artificially or by natural causes;
4. A compaction of the soil because of wetting (hydrocompaction);

5. Oxidation of organic matter in soils; or
6. An increased load on the surface of the land.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42325)

NAC 445A.8355 “Subsurface fluid distribution system” defined. (NRS 445A.425) “Subsurface fluid distribution system” means an assemblage of perforated pipes, drain tiles or other similar mechanisms intended to distribute fluids below the surface of the ground.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.836 “Total dissolved solids” defined. “Total dissolved solids” means the total dissolved solids after filtration as determined by the method specified in 40 C.F.R. Part 136.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4233)

NAC 445A.837 “Underground source of drinking water” defined. “Underground source of drinking water” means all aquifers within this state regardless of the quality of the water, except those exempted pursuant to NAC 445A.850 to 445A.855, inclusive.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42335)

NAC 445A.838 “Well” defined. (NRS 445A.425) “Well” means:

1. A bored, drilled or driven shaft with a depth greater than the largest surface dimension;
2. A hole which is dug, with a depth greater than the largest surface dimension;
3. An improved sinkhole; or
4. A subsurface fluid distribution system, not including subsurface fluid distribution systems associated with septic systems that have a capacity of 5,000 gallons or less per day or with mining processes.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.839 “Zone for injection” defined. “Zone for injection” means a geological formation, group of formations or part of a formation through which fluids from a well are received.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42345)

NAC 445A.840 “Zone of endangering influence” defined. “Zone of endangering influence” means the area in which increased pressures in the formation for injection may cause migration of the injected fluid or the fluid in the formation into an underground source of drinking water.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4235)

General Provisions

NAC 445A.842 Applicability of regulations. NAC 445A.810 to 445A.925, inclusive, apply to any person proposing to construct, alter, repair or abandon any injection well, or owning, using or operating, or proposing to use or operate any injection well on any lands within this state except for any injection well which is constructed or operated on land, whether tribal or allotted, within the limits of any Indian reservation or dependent Indian colony under the jurisdiction of the Federal Government.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42355)

NAC 445A.843 Applicable standards of other governmental agencies. The provisions of any federal, state, county or municipal law or regulation establishing standards for injection wells which affords greater protection to the public welfare, safety and health and to the ground water prevail within the jurisdiction of that governmental entity over standards established by NAC 445A.810 to 445A.925, inclusive. Those sections do not replace, or in any way affect the responsibility of any person to comply with the regulations and rules of practice and procedure administered by any other governmental agency.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4236)

NAC 445A.8435 Public access to information concerning locations of ground water protection areas and other sensitive ground water areas. (NRS 445A.425) The division shall ensure that information concerning the locations of ground water protection areas and other sensitive ground water areas is made available to the public in accordance with 40 C.F.R. § 144.87(d).

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.844 Classes of injection wells. NAC 445A.845 to 445A.849, inclusive, define the various classes of injection wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42365)

NAC 445A.845 Class I wells. (NRS 445A.425) A Class I well is an injection well for the disposal of industrial, municipal and radioactive waste, whereby fluids are injected below the lowest formation containing, within one-quarter mile of the well bore, water with a concentration of total dissolved solids of 10,000 milligrams or less per liter, and includes:

1. A well used for the injection of hazardous waste by a person who generates hazardous waste or an owner or operator of a facility for the management of hazardous waste; and

2. A well for the disposal of industrial waste and municipal sewage effluent.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.846 Class II wells. A Class II well is an injection well for the production and storage of oil and gas and includes a well which injects fluids:

1. Which are brought to the surface in connection with the conventional production of oil or natural gas;
2. For enhanced recovery of oil or natural gas; and
3. For storage of hydrocarbons which are liquid at standard temperature and pressure.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42375)

NAC 445A.847 Class III wells. A Class III well involves a special process which injects fluids for the extraction of minerals or energy, except geothermal energy, and includes:

1. Mining of sulfur by the Frasch process;
2. In situ production of uranium or other metals from bodies of ore which have not been conventionally mined;
3. Solution mining of salts or potash; and
4. In situ recovery of fossil fuel, which includes coal, tar sands, oil shale and any other fossil fuel which can be mined by this process.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4238)

NAC 445A.848 Class IV wells. A Class IV well is an injection well which injects hazardous wastes into or above a formation containing, within one-quarter mile of the well bore, an underground source of drinking water or an aquifer which has been exempted pursuant to NAC 445A.850 to 445A.855, inclusive, and includes a well used by:

1. Persons who generate hazardous waste or radiological or high-level radioactive waste; and
2. An owner or operator of a facility for the management of hazardous waste or a site for the disposal of radioactive waste.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42385)

NAC 445A.849 Class V wells. (NRS 445A.425) A Class V well is any injection well not included in Classes I, II, III and IV, and includes:

1. Wells used to inject the water for heating or cooling by a heat pump;
2. Cesspools or other devices receiving wastes which have an open bottom and sometimes have perforated sides;
3. Wells used to inject water previously used for cooling;
4. Wells used to drain surface fluid, primarily the runoff from storms, into a subsurface formation;
5. Wells used for the injection of fluids accumulated from dewatering operations;
6. Drywells and wells used for the injection of nonhazardous wastes into a subsurface formation;
7. Wells used to replenish the water in an aquifer;
8. Wells used to inject water into an aquifer of fresh water to prevent the intrusion of water of a lower quality into the fresh water;
9. Wells used to inject a mixture of water and sand, mill tailings or other solids into subsurface mines;
10. Wells used to inject sanitary waste for facilities other than single-family residences or facilities having a volume capacity of less than 5,000 gallons per day;
11. Wells used to inject fluids into a zone, other than an oil or gas producing zone, to reduce or eliminate subsidence associated with the overdraft of fresh water;

12. Wells used for the storage of hydrocarbons in a gaseous state at standard temperature and pressure;
 13. Geothermal injection wells used in contact and noncontact heating and aquaculture, and in the production of energy;
 14. Wells used for solution mining of ores or minerals in conventional mines, such as stopes leaching;
 15. Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts;
 16. Injection wells used in experimental technologies;
 17. Injection wells that are approved under a federal or state cleanup program and used to reinject pumped and treated contaminated ground water, other than hazardous waste, back into the same formation.
 18. Injection wells used to inject fluids for the chemical or microbiological treatment of contaminated ground water or soil; and
 19. Motor vehicle waste disposal wells.
- (Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.8491 Motor vehicle waste disposal wells: Requirements for owner of well in operation or under construction on or before April 5, 2000. (NRS 445A.425)

1. The owner of an existing motor vehicle waste disposal well that was in operation or under construction on or before April 5, 2000, shall close the well, obtain a permit to operate the well or convert the well in accordance with NAC 445A.8493 to 445A.8499, inclusive.
2. Not later than 90 days after October 25, 2001, the owner of the well shall submit to the director information concerning the location and operating status of the well, and such additional information concerning the well as requested by the director.
3. Based on the information provided by the owner of the well, the director shall determine whether the well is located within a ground water protection area and notify the owner of that determination.
4. If the director determines that the well is not located within a ground water protection area, the director shall make a preliminary determination, based on data provided by the division, whether the well is located within an other sensitive ground water area and notify the owner of that determination. If the director makes a preliminary determination that a well is located within an other sensitive ground water area, the owner of the well shall close the well, obtain a permit to operate the well or convert the well in accordance with NAC 445A.8493 to 445A.8499, inclusive.
5. If, by January 1, 2004, or, if an extension has been approved by the Environmental Protection Agency, by January 1, 2005, the local source water assessment has not been completed and the plan for the determination of other sensitive ground water areas has not been carried out for the area in which the motor vehicle waste disposal well is located, the motor vehicle waste disposal well shall be deemed to be located within an other sensitive ground water area and must be permitted, closed or converted accordingly.
6. If the director determines that the well is not located within a ground water protection area or other sensitive ground water area, and if the well is not deemed to be located within an other sensitive ground water area pursuant to subsection 5, the owner shall close the well, obtain a permit to operate the well or convert the well in accordance with its classification pursuant to NAC 445A.810 to 445A.925.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8493 Motor vehicle waste disposal wells: Deadlines for owner of well to meet requirements; extension of deadlines; conversion of well. (NRS 445A.425)

1. Except as otherwise provided in this section, the owner of an existing motor vehicle waste disposal well that is located within:

(a) A ground water protection area shall, not later than 1 year after the date on which the local source water assessment for the area is completed or January 1, 2005, whichever occurs first, close the well, apply for a permit to operate the well or convert the well.

(b) Another sensitive ground water area shall, not later than January 1, 2007, close the well, apply for a permit to operate the well or convert the well.

2. The deadlines set forth in subsection 1 may be extended for not more than 1 year if the Environmental Protection Agency approves an extension for this state pursuant to 40 C.F.R. §§ 144.87(b) and 144.87(c).

3. The director may extend the deadline for the closure of a motor vehicle waste disposal well for not more than 1 year if he determines that the most efficient option for compliance with applicable state and federal requirements concerning such wells is connection to a sanitary sewer or installation of new treatment technology. The director may not extend the deadline for obtaining a permit.

4. The director may authorize the conversion of a motor vehicle waste disposal well to another Class V type of well, including, without limitation, a storm water well, if the conversion is done in accordance with 40 C.F.R. § 144.89(b). The director shall, in conjunction with the owner of the well to be converted, establish a specific schedule pursuant to which the well must be converted.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8495 Motor vehicle waste disposal wells: Application for permit to continue operation of well. (NRS 445A.425)

1. If the owner of a motor vehicle waste disposal well determined to be located within a ground water protection area or other sensitive ground water area wishes to obtain a permit to continue operating the well, the owner must request an application for a permit from the division. The owner must submit a completed application to the director not later than 90 days after the date on which the owner receives the application from the division.

2. Not later than 30 days after the date on which the director receives the application, the director shall review the application to determine whether it is complete. The director may request additional information from an applicant if the director determines that the application is not complete. When an application is determined to be complete, the division shall make a final determination as to whether the well is located in an other sensitive ground water area.

3. To obtain and maintain a permit to operate a motor vehicle waste disposal well located within a ground water protection area or other sensitive ground water area, the owner of the well must:

(a) Demonstrate that, at the point of injection of the well, the drinking water standards of this state are met as of the date on which the application is submitted, and will continue to be met thereafter;

(b) Submit with the application a plan that establishes the best practices for the management of the well, and agree to put into place and carry out the plan as described in the permit; and

(c) Agree to monitor injectate and sludge quality for the well.

4. As used in this section, "point of injection" means the last accessible sampling point before waste fluids are released into the subsurface environment through an injection well.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8497 Motor vehicle waste disposal wells: Conditions for granting exemption to owner of well determined to be located in other sensitive ground water area. (NRS 445A.425)

1. The owner of an existing motor vehicle waste disposal well determined to be located in an other sensitive ground water area may request an exemption from the provisions of NAC 445A.8491 to 445A.8499, inclusive. The director may grant an exemption if the applicant demonstrates that the motor vehicle waste disposal well is not located in an other sensitive ground water area based on the injection activities of the well, in correlation with the geological and hydrogeological conditions of the site of the well.

2. In determining whether to grant an exemption, the director shall consider, without limitation:

(a) The specific characteristics of the site of the well, including, without limitation, the:

- (1) Depth to the level of ground water;
- (2) Characteristics of the vadose zone;
- (3) Proximity of the well to drinking water wells; and
- (4) Existing water quality for the site;

(b) Whether the proposed injection fluids will degrade the waters of this state, based on site-specific information provided by the owner of the well, the expected chemical composition of the injectate and the expected volume and frequency of injection; and

(c) Such other information as the director determines necessary.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8499 Motor vehicle waste disposal wells: Requirements for owner of well when location is changed by updated local source water assessment. (NRS 445A.425)

1. Except as otherwise provided in this section, if a motor vehicle waste disposal well initially determined not to be located in a ground water protection area is subsequently determined to be located within a ground water protection area pursuant to an updated local source water assessment, the owner of the well shall, not later than 1 year after the issuance of public notice of the change:

- (a) Close the well;
- (b) Obtain, pursuant to NAC 445A.8495, a permit to operate the well; or
- (c) Convert the well and obtain a permit to operate the converted well.

2. Upon the request of the owner of the well, the director may approve an extension of the deadline for the closure or permitting of the well if he determines that the most efficient option for compliance with applicable state and federal requirements concerning such wells is connection to a sanitary sewer or installation of new treatment technology.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.850 Injection of fluid that degrades quality of aquifer prohibited; exemption of aquifer by director. (NRS 445A.850) No person may inject a fluid which degrades the physical, chemical or biological quality of the aquifer into which the fluid is injected, unless the:

1. Director, pursuant to NAC 445A.851, exempts the aquifer from this requirement; and

2. Administrator of the Environmental Protection Agency does not disapprove the exemption.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.851 Criteria for determining exemption of aquifer. The director shall consider the following criteria in determining whether to exempt an aquifer or a portion thereof from the provisions of NAC 445A.850:

1. It does not currently serve as a source of drinking water and, because of the following reasons, it does not and will not serve as a source of drinking water:

(a) It produces a mineral, hydrocarbon or geothermal fluid or an applicant for a permit for a Class II or Class III well can demonstrate to the satisfaction of the director that it contains minerals or hydrocarbons that, considering their quantity and location, are expected to be capable of commercial production;

(b) It is situated at a depth or location which makes recovery of water for drinking economically or technologically impractical;

(c) It would be economically or technologically impractical to render the water fit for human consumption; or

(d) It is located over a mining area with a Class III well and is subject to subsidence or catastrophic collapse; or

2. The total dissolved solids in the ground water is more than 10,000 milligrams per liter, and it is not reasonably expected to become a supply of drinking water.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.424)

NAC 445A.852 Identification of exempted aquifers. The director may identify by narrative description, illustrations, maps, or other means and describe in geographic or geometric terms, such as vertical and lateral limits and gradient, all aquifers or parts thereof exempted pursuant to NAC 445A.850 and 445A.851.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42405)

NAC 445A.853 Exemption terminated when well abandoned; exception. An exemption granted pursuant to NAC 445A.850 and 445A.851 for an aquifer underlying an injection well must be automatically terminated when that well is abandoned and plugged, unless that well is one of several wells for which a single permit has been issued pursuant to NAC 445A.883 and an exemption has been granted for that portion of an aquifer comprising the zone for injection for that field of wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4241)

NAC 445A.854 List of exempted aquifers. A list of exempted aquifers must be maintained for public inspection at the offices of the department.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42415)

NAC 445A.855 Specific aquifers exempted. The following proven, oil-bearing portions of the Railroad Valley aquifer in Nye County, Nevada, are, on July 22, 1987, exempt from the requirements of NAC 445A.850 and 445A.851 for activities related to a Class II well:

1. A radius of one-quarter mile around the following wells in the Eagle Springs field:

(a) John Lyddon #1 (Section 35, Township 9 North, Range 57 East, M.D.B. & M.).

(b) Draycutt Corporation #45 (Section 36, Township 9 North, Range 57 East, M.D.B. & M.).

2. A radius of one-quarter mile around the following wells in the Trap Spring field:

(a) Harper Oil Co., Trap Spring #13 (Section 26, Township 9 North, Range 56 East, M.D.B. & M.).

(b) Harper Oil Co., Trap Spring #20X (Section 22, Township 9 North, Range 56 East, M.D.B. & M.).

(c) Western Avenue Properties, Munson Ranch #24-3 (Section 24, Township 9 North, Range 56 East, M.D.B. & M.).

3. A radius of one-quarter mile around Amoco Production Co., Blackburn #12 (Section 7, Township 27 North, Range 52 East M.D.B. & M.).

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4242)

NAC 445A.856 Prohibited wells and injections; exceptions. (NRS 445A.425)

1. Except as otherwise provided in this section, Class I and Class IV injection wells are prohibited, and the division shall not issue any permit to construct or operate such a well.

2. Cesspools and other types of vertical injection wells or drywells used for the injection of sanitary waste, other than engineered leach fields approved by the division or local health authority, are prohibited.

3. The injection of any hazardous waste through a well is prohibited, except under conditions where injection wells are used to inject contaminated ground water that has been treated and is being injected into the same formation from which it was drawn, if the subsurface emplacement of fluids is approved by the Environmental Protection Agency, or this state, as required pursuant to the provisions for the cleanup of releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601 et seq., or pursuant to NAC 445A.226 to 445A.22755, inclusive.

4. Motor vehicle waste disposal wells that were not operational or under construction on or before April 5, 2000, are prohibited.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.857 Prohibited wells: Report by owner or operator. Any Class I or Class IV well under construction or in operation before July 22, 1987, must be reported by the owner or operator to the director within 30 days after that date. The report must contain the following information:

1. The location of the injection well;
2. The name and address of the owner;
3. The name and address of the operator of the injection well, if the operator is a person other than the owner;
4. Drawings for the construction of the injection well which show the formations penetrated;
5. An analysis of the fluid injected into the well;
6. The date that injection was initiated;
7. The operating records showing the rate and pressure of the injection; and
8. The results of the tests performed on the well to determine its mechanical integrity.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4243)

NAC 445A.858 Prohibited wells: Abandonment and plugging; monitoring. Any Class I or Class IV injection well constructed or in operation before July 22, 1987, must be abandoned and plugged. The plan for abandoning and plugging must be submitted to and approved by the director within 90 days after the director notifies the owner or operator of such a well that it must be plugged and abandoned. The director may also require the owner or operator of such a well to:

1. Install wells to monitor the zone for injection and adjacent zones as necessary to detect the dispersion and migration of injected fluids within and from the zone for injection.

2. Monitor the levels of the fluid, quality of the water in the zone for injection and the wells monitoring the zone for injection at specified intervals.

3. Submit the results of such monitoring at the time and in the form he requires.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42435)

NAC 445A.8585 Establishment of concentration level for contaminant. (NRS 445A.425) If a maximum contaminant level has not been established for a contaminant, a concentration level for the contaminant may be established by using:

1. The naturally occurring background concentration of the contaminant; or

2. An appropriate level of concentration based on the protection of public health and safety and the environment. The appropriate level of concentration of a contaminant must be determined by the division using the Integrated Risk Information System adopted by reference pursuant to NAC 445A.2272, or an equivalent method approved by the division.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.859 Certification of documents submitted to director. All applications, reports or information submitted to the director must be signed and certified to be correct and true by the owner or the operator.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4244)

NAC 445A.860 Confidentiality of information submitted to director.

1. Any information submitted to the director pursuant to NAC 445A.810 to 445A.925, inclusive, may be claimed as confidential by the person submitting the information. If the person submitting the information wants the director to consider the information confidential pursuant to NRS 445A.665, the claim must be asserted at the time of submission by stamping or writing confidential business information on each page containing the information. If a claim is not made at the time of submission, the director may make the information available to the public without further notice.

2. In addition to the information described in NRS 445A.665, the director must deny a claim of confidentiality for the name and address of any applicant for a permit or any holder of a permit.

3. The confidential information must be disclosed, upon request, to the Administrator of the Environmental Protection Agency or his authorized representative, who shall maintain the disclosed information as confidential.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42445)

NAC 445A.861 Complaint of violation; investigation. A written complaint alleging a condition in violation of a provision of NAC 445A.810 to 445A.925, inclusive, or a condition or limitation of a permit may be filed with the director by any person. An investigation of the complaint must be made by the director and a written report of the investigation issued to the complainant and to the person alleged to have committed the violation.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4245)

NAC 445A.862 Enforcement of regulations.

1. It is not a defense in an action to enforce the provisions of NAC 445A.810 to 445A.925, inclusive, for a holder of a permit to assert that halting or reducing the permitted activity would have been necessary to comply with the conditions of the permit.

2. Any violation of NAC 445A.810 to 445A.925, inclusive, is grounds for an action for enforcement and the suspension, modification or revocation of a permit or the denial of the renewal of a permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42455)

Permits for Underground Injection

NAC 445A.865 Purpose of issuing permits; no vested right acquired by holder.

The purpose of issuing permits is to protect the public health and safety and the general welfare of the people of this state. Any permit issued pursuant to NAC 445A.810 to 445A.925, inclusive, is a revocable privilege and the holder of such a permit does not acquire thereby any vested right.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4248)

NAC 445A.866 Effect of permit issued by Environmental Protection Agency.

Upon delegation to the State of Nevada by the Federal Government of primary responsibility for enforcement of the Underground Injection Control Program, permits issued by the Environmental Protection Agency for injection wells within this state become state permits and are administered by the director for 5 years after the date of issuance of the original permit from the Environmental Protection Agency. No fee may be assessed for these permits until each is due for renewal.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42485)

NAC 445A.867 Application for permit. (NRS 445A.425) Except as otherwise provided in NAC 445A.8491 to 445A.8499, inclusive, an applicant for a permit to inject fluids must satisfy the director that the underground injection will not endanger any source of drinking water. An application for a permit must be filed within 180 days after July 22, 1987, for the operation of an injection well which is existing on that date and does not have a permit. Each application for a permit must be signed by the owner or, if the owner does not operate the well, the operator of the well and must contain the following information:

1. The name of the facility.
2. The name and address of the owner.
3. The name and address of the operator, if different than the owner.
4. A description of the location of each injection well by the quarter-quarter section, section, township and range, and latitude and longitude.

5. A map of the location of the facility, preferably a topographic map prepared by the United States Geological Survey, extending at least 1 mile beyond the boundaries of the facility, locating each injection well for which a permit is sought and the area of review. The map must show, within the area of review, the number, location and type of all injection wells, producing wells, abandoned wells, surface bodies of water, surface and subsurface mines, quarries, public and private systems to supply water and other pertinent features on the surface.

6. A plan for corrective action, as required pursuant to NAC 445A.899, for each injection well within the area of review which penetrates the zone for injection, but is not correctly completed or plugged.

7. A narrative report, geologic cross section and isopach map in sufficient scale to detail the local geology and hydrology. The information should be sufficient to show the geologic formations, structural features and concentration of total dissolved solids for each formation, zone for injection and confining zone.

8. The plans and drawings for construction showing the details of the casing and cementing, including the size of the hole, type of casing and type and grade of cement.

9. The drilling log for each production or injection well owned or operated by the applicant which is located within the area of review.

10. The proposed operating data, including:

(a) The average and maximum daily rates of injection and the volume of the fluid injected;

(b) The average and maximum pressures of the injection; and

(c) The source of the fluid injected and an analysis of its physical, chemical and biological characteristics.

11. A chemical analysis, if available, of the fluid in the receiving formation to ensure compatibility with the injectate, and an analysis of the hydraulic conductivity of the receiving formation.

12. The proposed procedures for injection, including additives to or storage and pretreatment, if any, of the fluid injected, the use of the well, the planned standard practices for stimulation of the well and the planned schedule for workover.

13. A certificate that the applicant has ensured, through a performance bond or other appropriate means, the resources necessary to plug and abandon the well.

14. A plan for plugging and abandoning the well as described in NAC 445A.923.

15. Any other information required by the director to ensure that the proposed operation will not degrade an underground source of drinking water. That information may include a plan for monitoring the elevation or quality of ground water surrounding the zone for injection.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.868 Information required in application for Class II well. An applicant for a permit for a Class II well must include in his application the following information concerning the injection formation:

1. The fluid pressure;

2. The estimated fracture pressure; and

3. The physical and chemical characteristics of the injection zone.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42495)

NAC 445A.869 Modification of information required in application for Class V well. The director may modify the information required in an application for a permit for a Class V well for good cause and upon determining that additional or less information will ensure that a proposed injection well will not degrade an underground source of drinking water.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.425)

NAC 445A.870 Information required in application for Class III well that necessitates exemption for aquifer. For Class III wells, an applicant for a permit which necessitates an exemption for the aquifer must furnish the information necessary to demonstrate that the aquifer is expected to produce a mineral or hydrocarbon. The director shall consider information in the plan for mining for the proposed project, such as a map and general description of the zone for mining, general information on the mineralogy and geochemistry of the zone for mining, an analysis of the amenability of the zone for mining to the proposed method of mining and a schedule for the planned development of the zone for mining.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42505)

NAC 445A.871 Bond required.

1. Except as otherwise provided in subsections 2 and 3, an applicant for a permit for an injection well must provide evidence that he has obtained a good and sufficient bond in favor of the state:

(a) In a sum equal to the estimated cost contained in the plan for the plugging and abandonment of the well, conditioned that the well upon abandonment be plugged pursuant to the plan for plugging and abandonment of the well; or

(b) Upon approval of the director, in a sum of not less than \$50,000 to cover all injection wells being drilled or to be drilled by him in this state.

2. An applicant who has deposited a bond with the Federal Government for a well drilled on federal land need not comply with the provisions of this section but must furnish the director with a copy of that bond.

3. For Class V wells, other than geothermal injection wells associated with the production of power, the director, upon receipt of adequate proof of financial responsibility, may waive or reduce the bonding requirements of this section.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4251)

NAC 445A.872 Fees. (NRS 445A.425, 445A.430)

1. A nonrefundable fee must accompany each application for a permit for an injection well. The applicable fee is:

Type of Injection Well	Application Fee	Fee for Annual Services, Major Modifications or Renewal of Permit
Class II, oil and gas	\$4,000 plus \$500 for each well	\$2,000 plus \$150 for each well
Class V, geothermal injection wells associated with the production of energy		
Producing 25 megawatts or more.....	\$5,000 plus \$500 for each well	\$3,000 plus \$150 for each well
Producing 10 megawatts or more but less than 25 megawatts.....	\$4,000 plus \$500 for each well	\$1,500 plus \$150 for each well
Producing less than 10 megawatts	\$3,000 plus \$500 for each well	\$1,000 plus \$150 for each well
Class V, geothermal injection associated with space heating		
Discharging less than 250,000 gallons daily	\$700	\$250
Discharging 250,000 gallons or more daily	\$1,500	\$500
Class V, injection wells associated with remediation, treatment of waste or experimental technology	\$2,000 plus \$500 for each well	\$1,000 plus \$150 for each well
Class V, injection wells associated with mining pit dewatering	\$4,000 plus \$500 for each well	\$2,000 plus \$150 for each well
Class V, all others.....	\$500 plus \$100 for each well	\$150 plus \$25 for each well
General Permit.....	No fee	

2. A Class III well will be charged a fee for a permit for the actual cost of the review of the application calculated at a rate of \$50 per hour for the time spent for the review. The fee for renewal of a permit for a Class III well is \$750.

3. A fee for the renewal of a permit or for major modifications, if applicable, must be paid in addition to the fee for annual services.

4. Except as otherwise provided in NAC 445A.885, the fee for annual services must be:

- (a) Submitted to the division on or before July 1; and
- (b) Paid in advance for each subsequent year during the life of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 9-19-90; R042-01, 10-25-2001)

NAC 445A.873 Notification whether application complete; submission of additional information. The permit for an injection well may not be issued until the director determines that the application is complete and the applicable fee has been paid. The director shall notify the applicant within 30 days after receipt of an application as to whether the application is complete, but only with respect to the submittal of the information, not the adequacy of the information. If an applicant becomes aware that he failed to submit any relevant information or submitted incorrect information in an application, he shall promptly submit such facts or information to the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4252)

NAC 445A.874 Preparation of documents by director when application is complete. Once an application for a permit is complete, the director shall prepare:

1. A draft of the permit and a tentative exemption for the aquifer, if required, or a notice of intent to deny the application.

2. A statement, or a fact sheet if the proposed injection well is determined to be a major facility, which briefly describes the derivation of the conditions in the draft of the permit and the reasons for them or, in the case of a notice of intent to deny, the reasons supporting the tentative decision.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42525)

NAC 445A.875 Public notice of tentative action on application for permit. A public notice for each draft of a permit for an underground injection well, tentative exemption for an aquifer, if required, or intent to deny an application for a permit must be circulated by the director at least 30 days before the issuance of the permit, exemption or denial, in a manner designed to inform interested and potentially interested persons. The notice must be:

1. Published in a daily newspaper of general circulation within the geographic area of the proposed injection well; and

2. Mailed to the applicant, any person or group requesting notice, the division of minerals, the health division of the department of human resources, the division of water resources of the department and the administrator of the office of historic preservation of the department of cultural affairs.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4253)

NAC 445A.876 Contents of public notice. The public notice must include at least the following:

- 1. The name, address and telephone number of the department;
- 2. The name and address of the applicant;
- 3. A brief description of the proposed facility;
- 4. A statement of the tentative determination to issue or deny a permit for the injection described in the application;

5. The boundaries and characteristics of the aquifer for which a tentative exemption, if required, is being considered;

6. A brief description of the procedure for:

(a) The formulation of a final determination, including a 30-day period during which interested persons may submit to the director written comments on the draft or the tentative exemption or comment on that determination; and

(b) Requesting a public hearing, if one has not been scheduled; and

7. The address and phone number at which interested persons may obtain further information or inspect and copy the draft of the permit, the statement and fact sheet described in NAC 445A.874, application for the permit and other relevant forms or documents.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42535)

NAC 445A.877 Public hearing and comments concerning tentative action on application for permit; notice of hearing.

1. The applicant or any interested person may:

(a) Request a public hearing on any application for a permit. If a hearing has not already been scheduled, an interested person may request a hearing during the 30-day period for comments. A request for a public hearing must be in writing and must state the nature of the issues to be raised in the hearing.

(b) Within 30 days after the notice is circulated pursuant to NAC 445A.875, submit to the director written comments on the draft of the permit or the tentative exemption of the aquifer.

2. The director shall hold a public hearing if he determines that, on the basis of any requests for a hearing, there is a significant degree of public interest in the matter or may hold a public hearing on his own motion.

3. The director shall publish a notice of the hearing at least 30 days before the hearing in the manner prescribed in NAC 445A.875. In addition to the information prescribed in NAC 445A.876, the notice must contain the following:

(a) The date of any previous notices relating to the permit;

(b) The date, time and place of the hearing; and

(c) A brief description of the nature and purpose of the hearing and the applicable rules and procedures.

4. Any person may submit at the hearing an oral or written statement and data concerning the draft of the permit or the tentative exemption of the aquifer. The director may set reasonable limits upon the time allowed for oral statements, and the submission of statements in writing may be required. The period for comment required in subsection 6 of NAC 445A.876 is automatically extended to the close of the hearing on that matter.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4254)

NAC 445A.878 Statement by director responding to comments concerning tentative action on application for permit. At the time a final permit and exemption for an aquifer, if required, is issued, the director shall also issue a statement responding to the comments received by him on the matter. A copy of the statement must be sent to the applicant and persons submitting comments, and must be made available for inspection by the public. This statement must:

1. Specify which provisions, if any, of the draft of the permit and exemption for the aquifer have been changed in the final permit or exemption, and the reasons for the change;

2. Briefly describe and respond to all significant comments on the draft of the permit and tentative exemption for the aquifer which were submitted during the period for public comment or at the public hearing; and

3. Include information that any person aggrieved by a decision of the director may appeal that decision as provided in NRS 445A.605.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42545)

NAC 445A.879 Period for issuance or denial of permit. Within 30 days after the end of any period for public comment regarding the issuance or renewal of a permit or the close of the public hearing, the director shall either issue the final permit or provide written notice to the applicant why the final permit will not be issued at that time.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4255)

NAC 445A.880 Expiration of permit. A permit expires 5 years after the date of issuance except that an earlier date may be specified by the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42555)

NAC 445A.881 Transfer of permit. A permit may be transferred to a new owner or operator upon application to the director containing assurance that the new owner or operator has complied with the requirements regarding financial responsibility prescribed in NAC 445A.871 at least 30 days before the transfer is made. Until notice is given by the director that a permit is transferred, the owner or operator indicated in the most current permit is responsible for complying with NAC 445A.810 to 445A.925, inclusive.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4256)

NAC 445A.882 Renewal of permit. Upon application and payment of a renewal fee to the director at least 180 days before the date of expiration of the permit, the renewal of a permit must be reviewed by the director. The director shall reissue, revise or deny the renewal of permit and give written notice of his action to the holder of the permit before the date of expiration of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42565)

NAC 445A.883 Permit for certain groups of wells. A group of similarly designed injection wells located on a single parcel of property, owned or operated by the same applicant, and injecting the same class of fluids may be issued a permit as a single facility, except that the fee for the application is as prescribed in NAC 445A.872 plus \$100 for each additional well. The total fee must be paid before the director may accept the application as complete.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4257)

NAC 445A.884 Single permit for facilities otherwise required to obtain additional permits. A single permit may be issued by the director for a facility that is required to obtain additional permits because of on-site treatment or storage of fluids for injection. Fees for such a permit must be based on each separate activity required to have a permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42575)

NAC 445A.885 Modification, revocation, suspension, cancellation or denial of permit. (NRS 445A.425)

1. In addition to the grounds specified in NRS 445A.600, the director may modify, revoke, suspend or cancel a permit during its term or deny the renewal of a permit upon a determination by the director that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by modification, revocation, suspension or denial of the permit.

2. If the activity for an injection well requiring a permit ceases, the holder of the permit may request that the director cancel the permit, if the holder is in compliance with all the conditions set forth in the permit and the conditions set for the closure of the site in question, including well plugging and abandonment. The holder of the permit may request permission to keep the injection well open to monitor the well or for any other purpose. The holder of a permit who submits a request to keep an injection well open must provide with the request legal and financial assurance pursuant to NAC 445A.871 that the well will ultimately be plugged and abandoned in accordance with all applicable state and federal laws and regulations.

3. The holder of a permit for an injection well may request that the director suspend the permit for the well if injection has currently ceased at the well but may be required for projects in the future, including, without limitation, remediation projects. During the period of the voluntary suspension of the permit, the holder of the permit is not required to pay the fee for annual services for the permit. The holder of a voluntarily suspended permit may request that the director activate the permit without reapplying for a new permit if the request is made before the date on which the permit otherwise would have expired if it had not been voluntarily suspended. If the holder of a permit voluntarily suspended pursuant to this subsection does not request reactivation of the permit before the expiration of the permit, the holder of the permit must apply for a new permit before he may again use the well as an injection well.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.886 Submission of information requested by director. The holder of a permit shall furnish to the director, within a time specified by the director, any information which may be requested by him to determine whether cause exists for modifying, suspending or revoking the permit or to determine whether the holder is complying with the conditions of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42585)

NAC 445A.887 Permit for Class V well may contain less stringent requirements. The director may authorize by an individual or general permit a Class V well to have requirements less stringent for its area of review, technical requirements for its construction, mechanical integrity, operation, monitoring and reporting than the requirements prescribed by NAC 445A.810 to 445A.925, inclusive, if the reduction in requirements does not result in an increased risk of movement of fluids from the zone for injection.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4259)

NAC 445A.888 Inclusion in permit of schedule for compliance.

1. The permit may, when appropriate, specify a schedule for compliance with NAC 445A.810 to 445A.925, inclusive, and chapter 445A of NRS.

2. The schedule for compliance must require compliance as soon as possible and in no case later than 1 year after the effective date of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42595)

NAC 445A.889 Notice to director of failure to comply with terms of permit.

1. Except as otherwise provided in subsection 2, if for any reason the holder of a permit does not comply with or will be unable to comply with the conditions, requirements and limitations specified in the permit, the holder shall provide the director with the following written information within 5 days after becoming aware of his inability to comply:

(a) A description of the condition, requirement or limitation with which he cannot comply;

(b) The period of the noncompliance including exact dates and times, or the anticipated time the noncompliance is expected to exist; and

(c) A description of any action being taken to reduce or eliminate the probability of its recurrence.

2. If the noncompliance with a condition, requirement or limitation specified in the permit has caused or may cause migration into or between underground sources of drinking water, or has introduced or may introduce a contaminant which endangers an underground source of drinking water, or otherwise endangers public health or the environment, the holder of the permit shall notify the director orally within 24 hours after becoming aware of the circumstances. The holder shall also file the written information with the director as required in subsection 1.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.426)

NAC 445A.890 Issuance of temporary permit. (NRS 445A.425)

1. The director may temporarily permit a specific underground injection of fluids if:

(a) An imminent and substantial danger to the public health or the environment will result unless the temporary permit is granted; or

(b) A substantial delay in the operation of an oil, gas or geothermal production facility which has a permit for an injection well will occur unless a temporary permit is granted, the timely application for a permit could not practicably have been made and the injection will not result in the movement of fluids out of the zone for injection previously permitted.

2. The director may issue a temporary permit for a well used to inject contaminated ground water that has been treated and is being reinjected into the same formation from which it was drawn as part of a cleanup plan approved by the director or the Environmental Protection Agency in cases where federal approval is required.

3. The director may issue a temporary permit for a pilot project or a test of limited duration if the director determines that the pilot project or test is necessary to determine the feasibility of a project or that the limited duration of the pilot project or test does not justify the use of time and financial resources to obtain a permit to inject fluids. The director may not issue such a temporary permit if he determines that the pilot project or test raises imminent environmental concerns.

4. At the time of application for a temporary permit pursuant to this section, the director may request and the applicant shall provide such reasonable data and other information as the director determines to be necessary to evaluate the application. Within 60 days after the date on which he receives such an application, the director shall:

(a) Approve the application and issue the temporary permit; or

(b) Disapprove the application and inform the applicant of the reasons for the disapproval.

5. Any temporary permit issued pursuant to this section is valid only as long as necessary to prevent the hazard, and in no case longer than 90 days. If an application for a permit has been filed with the director before the date of expiration of the temporary permit, the period the temporary permit is valid may be extended to the date the application is approved or disapproved.

6. The director shall condition the temporary permit in any manner necessary to ensure that the injection will not degrade any underground source of drinking water.

7. Within 10 days after the issuance of a temporary permit, the director shall give public notice pursuant to NAC 445A.875, and provide the opportunity for a public hearing.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.891 General permits: Eligible types of wells. (NRS 445A.425) The director may issue a general permit for the following types of Class V wells:

1. Geothermal wells using a closed loop that return fluid to the geothermal aquifer used for domestic heating and inject no more fluid than an annual average of 1,800 gallons per day.

2. A well with a closed loop used to inject the water used for heating or cooling by a heat pump.

3. Drainage wells for swimming pools having a capacity of 100,000 gallons or less.

4. Storm water drainage wells used to drain the runoff from a storm.

5. Wells used to inject a mixture of water and sand, mill tailings or other solids into subsurface mines.

6. Wells used to inject remediation enhancement products at remediation sites.

7. Wells used to inject fluid that has passed through various interceptors designed to collect oil, grease and sediment. The holder of a permit issued pursuant to this section for such a well shall:

(a) Conduct periodic injectate sampling to ensure that contaminants, including, without limitation, gasoline, solvents and metals, do not enter the system; and

(b) Submit and carry out a best management practices plan.

8. Other shallow injection wells from a commercial or institutional operation that have a consistent, noncontaminated waste stream, including, without limitation, injection wells for industrial process waste and drainage, laundromats, food processing and car washes.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.8915 General permits: Procedures to request coverage for Class V well. (NRS 445A.425)

1. A person may request coverage for a Class V well under a general permit by submitting a notice of intent to operate the well as an activity for which a general permit has been issued. A notice of intent must be submitted on a form provided by the director and include the required fee as set forth in NAC 445A.872 and sufficient information to allow the director to make a determination of eligibility, including:

(a) The name and address of the applicant;

(b) The exact location of the Class V well to be covered under the general permit;

(c) The nature and quality of the injection fluids to be injected by the Class V well;

(d) The volume and frequency of the proposed injections; and

(e) Such other information as the director determines necessary to evaluate the application and the impact that approval of the application will have on the environment.

2. If the director approves the application, the director shall send to the applicant a letter of authorization that acknowledges coverage of the Class V well under the general permit. A letter of authorization may include such additional requirements as the director determines appropriate for the operation of the Class V well based on the specific characteristics of the site of the well to be covered by the general permit.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.892 General permits: Description of geographic area. A general permit may be written to cover a category of injection well described in NAC 445A.891, except those covered by individual permits, within a geographic area. The area must be described in the permit and must conform to existing hydrological or political boundaries such as:

1. The land lying over a specific aquifer; or
2. The boundaries of a city, county or state.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42615)

NAC 445A.893 General permits: Regulation of category of wells. A general permit may be written to regulate, within the area described in the permit, a category of injection wells if all of the wells:

1. Involve the same or substantially similar types of injection;
2. Inject the same types of fluids;
3. Require the same limitations for the permit and operating conditions;
4. Require the same or similar monitoring; and
5. In the opinion of the director, are more appropriately controlled under a general permit than under individual permits.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4262)

NAC 445A.894 General permits: Requiring holder to obtain individual permit; petition for exclusion. (NRS 445A.425) The director may require any person authorized to inject by a general permit to apply for and obtain an individual permit. If an individual permit is issued to a person holding a general permit, the general permit is automatically terminated on the effective date of the individual permit. If the holder of a general permit is required to obtain an individual permit, the holder must obtain that individual permit in accordance with the procedures set forth in NAC 445A.269. An interested person or a holder of a general permit may apply for a petition for exclusion from the general permit pursuant to NAC 445A.270.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.895 General permits: Public notice and opportunity for hearing. Public notice and the opportunity for a hearing must be provided before the issuance of a general permit. The notice must be given and the hearing conducted pursuant to NAC 445A.874 to 445A.878, inclusive.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4263)

NAC 445A.896 General permits: Modification, suspension or revocation. The director may modify, suspend or revoke a general permit pursuant to NAC 445A.885 as if it were an individual permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42635)

NAC 445A.897 Area of review: Definition. An area of review, required in the application for a permit for each injection well, consists of a circle circumscribed around the well with a fixed radius of 1 mile. This is the surface of the land lying over the zone of endangering influence. If an injection well is drilled at an angle greater than 1E deviation from vertical, the area of review is the area within 1 mile of the locations of both the surface and bottom hole.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4264)

NAC 445A.898 Area of review: Increase or decrease by director. The director may require that a greater or lesser area of review be prescribed in an application for a permit. This must be based upon:

1. The chemical, physical and biological characteristics of the fluids to be injected;
2. The characteristics of the formation into which the fluids will be injected;
3. Mathematical models, if appropriate, for computing pressure and changes in concentration in the injected formation;
4. The population in the area; and
5. The uses of the ground water and the existence of water wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42645)

NAC 445A.899 Identification of known wells and analysis of pressure; plan for corrective action. An applicant for a permit for an injection well shall identify all known wells within the area of review and may be required to submit an analysis of the build-up of pressure for those wells. If a well penetrates the zone for injection and is improperly completed, plugged or abandoned, the applicant shall submit a plan for corrective action consisting of such steps or modifications as are necessary to prevent movement of fluid into underground sources of drinking water. The plan for corrective action must include:

1. A description of each type of well requiring corrective action such as a production, injection, dry or irrigation well or a well supplying water.
2. The depth of the well.
3. The status of the well such as active, inactive, plugged or abandoned. If abandoned, the date of last use and date of abandonment.
4. The name and address of the person responsible for the well.
5. The date the well was drilled and the dates of significant workovers.
6. The results of all logs and tests performed on the well.
7. Information concerning the construction of the well such as a description of the casing, tubing, packer and cementing.
8. The intervals between perforations or screens.
9. The distance of the well from the injection well.
10. A description of the corrective action to be taken.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4265)

NAC 445A.900 Action by director on plan for corrective action.

1. If a plan of corrective action has been determined by the director to be adequate, the director shall incorporate it into the permit as a condition.
2. If the director's review of the plan indicates that the plan is inadequate pursuant to NAC 445A.899, the director shall require the applicant to revise the plan, prescribe a plan for corrective action and a schedule for compliance as a condition of the permit or deny the application.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42655)

NAC 445A.901 Applicant to report improperly completed, plugged or abandoned well; correction of condition.

1. If an improperly completed, plugged or abandoned well is not under the applicant's control, the applicant shall:
 - (a) File a complaint with the appropriate governmental agency requesting the agency to take action to have the condition of the well corrected; or
 - (b) Take appropriate corrective action approved by the director at his expense.

2. The correction of any condition required for a well must be completed before operation of the new injection well begins.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4266)

NAC 445A.902 Minor modifications to permit. (NRS 445A.425) With the consent of the holder of a permit issued pursuant to NAC 445A.810 to 445A.925, inclusive, and without public notice, the director may make minor modifications to the permit to:

1. Correct typographical errors.
2. Increase or decrease the frequency of monitoring, reporting or sampling. The director may modify the permit to decrease the frequency of monitoring, reporting or sampling only if he has determined that the injection process has not changed and the historic data demonstrates such consistency that continued monitoring will not provide additional, relevant information.
3. Change an interim compliance date in a schedule of compliance if the new date is not more than 120 days after the date specified in the permit and does not interfere with attainment of the final compliance date requirements.
4. Allow for a change in ownership or operational control of a facility if:
 - (a) The director determines that no other change in the permit is necessary;
 - (b) The holder of the permit and the person to whom ownership or operational control will be transferred have entered into a written agreement containing a specific date for the transfer of the responsibility, coverage and liability required for the facility under the permit; and
 - (c) A copy of the written agreement has been provided to the director.
5. Change the quantity or type of fluids injected that are within the capability of the facility as permitted if, in the judgment of the director, the change in quantity or type of fluid will not interfere with the operation of the facility or its ability to meet the conditions prescribed by the permit for the operation of the facility and will not change the classification of the facility.
6. Change requirements relating to construction if the change in requirements complies with the requirements of this section and NAC 445A.905 to 445A.925, inclusive.
7. Amend a plan that has been updated pursuant to subsection 2 of NAC 445A.923 for plugging and abandoning an injection well.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

Construction, Operation, Monitoring and Abandonment

NAC 445A.905 Construction prohibited without permit. The construction of an injection well for which a permit is required may not begin until the permit has been issued.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4268)

NAC 445A.906 Compliance with permit; minimization or correction of adverse impact on environment. The holder of a permit shall:

1. At all times maintain in good working order and operate as efficiently as possible all facilities, devices or systems installed or used by the holder to achieve compliance with the terms and conditions of the permit; and
2. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from his failure to comply with the terms and conditions of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42685)

NAC 445A.907 Power of director to suspend or halt construction or operation. The director may suspend or halt construction or operation of an injection well upon receipt of information that a contaminant which is present in or likely to enter a public water supply may present an imminent or substantial danger to the public health or safety.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4269)

NAC 445A.908 Location and construction of well.

1. An injection well must be:
 - (a) Situated on a well-drained site not subject to inundation by a flood with a recurrence interval of 100 years.
 - (b) Sited in such a way that it injects into a formation which is separated from any underground source of drinking water by a confining zone that is free of known open faults or fractures within the area of review.
 - (c) Easily accessible for maintenance, repair, testing, or such other attention as may be necessary.
 - (d) Separated by a minimum horizontal distance of 50 feet from any water-tight conduit, such as a cast-iron pipe which carries sewage or other liquid wastes.
 - (e) Separated by a minimum horizontal distance of 100 feet from any septic tank, drain field or other facility for the collection or disposal of other liquid waste.
 - (f) Separated by a minimum horizontal distance of 10 feet from the boundary of any adjoining property.
 - (g) Cased from the finished surface to the top of the zone for injection and constructed so that no contamination can occur as a result of conditions on the surface surrounding the well.
 - (h) Cemented to prevent movement of fluid into or between underground sources of drinking water. The casing and cement used in the construction of each injection well must be designed to endure for the life expectancy of the well.
2. All injections into an injection well must be through tubing set on a mechanical packer, unless another means is approved by the director. The packer must be set between the top of the zone for injection and the bottom of the next highest underground source of drinking water and as close as possible to the top of the injected interval.

3. The wellhead must be equipped above the ground with valves for the observation of pressure for each annular opening of the well and for the tubing.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42695)

NAC 445A.909 Submission and contents of notice of completion; approval or denial of permission to initiate injection.

1. Within 30 calendar days after completion of a new injection well, the holder of a permit shall furnish the director with a notice of completion containing the following information:

- (a) Plans and drawings of the completed well as constructed.
- (b) Copies of appropriate logs and other tests conducted during construction of the well and a descriptive report interpreting the results of that portion of the logs and tests related specifically to the zone for injection and adjacent formations.
- (c) A chemical analysis of the fluid in the zone for injection.
- (d) The results of deviation checks conducted on a well which is constructed by drilling a pilot hole and enlarging that hole by reaming or other methods.

2. The deviation checks must be at sufficiently frequent intervals to ensure that vertical avenues for the movement of fluids in the form of diverging holes are not created during drilling.

3. The director shall review the information submitted pursuant to subsection 1 and NAC 445A.910, and shall notify the holder of the permit in writing within 30 days after receipt of that information whether:

- (a) Approval is granted to initiate injection;
- (b) The information submitted differs substantially from previously submitted information and an additional 30 days for review is required before the director will make a decision; or
- (c) Permission to initiate injection is denied.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.427)

NAC 445A.910 Factors for determining logging and testing requirements for Class II wells. To determine the logging and testing requirements for Class II wells, the director will consider:

1. For surface casing intended to protect underground sources of drinking water in areas where the lithology has not been determined:

- (a) Electric and caliper logs before casing is installed; and
- (b) A cement bond, temperature or density log after the casing is set and cemented.

2. For intermediate and long strings of casing intended to facilitate injection:

- (a) Electric, porosity and gamma ray logs before the casing is installed;
- (b) Fracture finder logs; and
- (c) A cement bond, temperature or density log after the casing is set and cemented.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42705)

NAC 445A.911 Limitations on location and pressure of injection; authorizing fracturing in zone for injection.

1. The pressure for injection at the wellhead of an injection well must not exceed that which is calculated to initiate new fractures or propagate existing fractures in the zone for injection or the confining formation between the zone for injection and underground sources of drinking water.

2. The pressure for injection must be calculated by using the formula:

$$P_m = (0.733 - 0.433 S_g)d$$

“P_m” means the pressure of injection at the wellhead in pounds per square inch.

“S_g” means specific gravity of the injected fluid (unitless).

“d” means the depth of the injection, in feet, measured from the top of the interval for injection.

3. Fracturing in the zone for injection may be authorized by the director if the holder of the permit can demonstrate that the fracturing would not result in the movement out of the zone for injection of injected fluids or fluids in the formation. The holder of the permit shall demonstrate the mechanical integrity of the injection well after such a fracturing operation and before commencing the injection of fluids.

4. In no case may the pressure of injection cause the movement into an underground source of drinking water of injected fluids or fluids in the formation.

5. No injection may occur between the outermost casing protecting underground sources of drinking water and the well bore.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.4271)

NAC 445A.912 Analysis of injected fluid. The chemical, physical and biological nature of the injected fluid must be analyzed with sufficient frequency to yield representative data on its characteristics. When requested by the director, or at any time the injected fluid is modified to the extent that the analysis required by paragraph (c) of subsection 10 of NAC 445A.867 is incorrect or incomplete, a new analysis must be made and the results sent to the director.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42715)

NAC 445A.913 Frequency of monitoring. The pressure of injection, pressure of the annular space between the tubing and the casing, rate of flow and cumulative volume of injected fluid must be monitored at least:

1. Once each week for the disposal operations of a Class II well.
2. Twice each month for Class III wells.
3. Once each month for enhanced recovery of a Class II well.
4. Once each day for injection of liquid hydrocarbons and the injection for withdrawal of stored hydrocarbons for a Class II well.
5. As required by the permit for the operation of a Class V well.

(Added to NAC by Environmental Comm’n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4272)

NAC 445A.914 Placement of wells for monitoring Class III wells. For Class III wells the director may require that monitoring wells be completed in the zone for injection and in any underground source of drinking water above the zone for injection which could be affected by the operation of the mine. The wells must be located to detect any movement of injected fluids, by-products of the mining process or fluids in the formation outside the mining area. If the operation may be affected by subsidence or catastrophic collapse, the monitoring wells must be located so that they will not be physically affected by those events.

(Added to NAC by Environmental Comm’n, eff. 7-22-87)—(Substituted in revision for NAC 445.42725)

NAC 445A.915 Analysis of wells for monitoring Class III wells. Wells used to monitor the movement of injected fluids or fluids in or around a Class III injection well must be sampled and analyzed at least once each month.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4273)

NAC 445A.916 Tests for mechanical integrity: Frequency. Tests to demonstrate mechanical integrity must be conducted at least once each 5 years for the life of an injection well. The director may require such tests more frequently if conditions of the operation so warrant. The holder of a permit shall notify the director at least 45 days before the date upon which a test for mechanical integrity is to be performed.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42735)

NAC 445A.917 Tests for mechanical integrity: Methods for evaluating absence of leaks. One of the following methods must be used in the test for mechanical integrity to evaluate the absence of significant leaks in the casing, tubing or packer:

1. Monitoring the pressure on the annulus between the casing and tubing after an initial pressure test.

2. A test for pressure with liquid.

3. A survey using a radioactive tracer.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4274)

NAC 445A.918 Tests for mechanical integrity: Methods for determining absence of movement of fluid. One of the following methods must be used in the test for mechanical integrity to determine the absence of significant movement of fluid into an underground source of drinking water through a vertical channel adjacent to the well bore:

1. The results of a survey of the temperature or noise of a well.

2. Records of cementing which demonstrate the presence of adequate cement behind the casing to prevent migration of fluid.

3. In an appropriate hydrogeologic setting, a survey using a radioactive tracer, which must be used in conjunction with at least one of the other alternatives.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42745)

NAC 445A.919 Tests for mechanical integrity: Alternative methods. The director may authorize the use of a test to demonstrate mechanical integrity other than those listed in NAC 445A.917 and 445A.918 upon publication of the alternative method in the Federal Register and the written approval of the Administrator of the Environmental Protection Agency.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4275)

NAC 445A.920 Loss of or failure to demonstrate mechanical integrity. If the holder of a permit or the director finds that an injection well fails to demonstrate mechanical integrity during a test or a loss of mechanical integrity becomes evident during operation, the operation of the injection well must be stopped immediately and may not be resumed until approved by the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42755)

NAC 445A.921 Filing reports from monitoring and results of periodic tests.

1. Reports containing information obtained by monitoring as required by the permit must be filed with the director at least quarterly.

2. The results of the testing for mechanical integrity of an injection well and any other periodic testing required by the director must be filed with the first quarterly report after the completion of the tests.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4276)

NAC 445A.922 Retention of records from monitoring.

1. The holder of a permit shall retain records of all information resulting from the monitoring required by the permit including:

(a) The records of the calibration and maintenance of the injection well and all original, continuous charts from recording instruments;

(b) Copies of all reports required by the permit;

(c) Records of all data used to complete the application for the permit; and

(d) The reports of the nature and composition of all injected fluids.

2. The records enumerated in paragraphs (a), (b) and (c) of subsection 1 must be retained for at least 3 years after the date the sample or measurement is taken or the report or application is made. This period may be extended by the director. The records enumerated in paragraph (d) of subsection 1 must be retained for 5 years after the completion of any procedures for plugging and abandonment. The director may require the owner or operator to deliver the records to his office at the conclusion of the period for retaining the records.

3. The records of information resulting from monitoring must include:

(a) The date, exact place and time of the sampling or measurement;

(b) The name of the person who performed the sampling or measurement;

(c) The date the analysis was performed;

(d) The name of the person who performed the analysis; and

(e) The results of each analysis.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42765)

NAC 445A.923 Plugging and abandonment: Plan; notice; procedure; certification. (NRS 445A.425)

1. If the plan for plugging and abandoning an injection well is determined by the director to be adequate, it will be incorporated as a condition to the permit.

2. The plan for plugging and abandoning an injection well must contain an estimate, based on the current and prevailing economy, of the cost of plugging each well for which the application for the permit is made. The applicant shall certify in the plan that the estimate of the cost will be reviewed annually during the life of the permit, and that the bond required pursuant to NAC 445A.871 will be increased when the review indicates that the cost of plugging is more than 10 percent greater than the original or most recent estimate of the cost.

3. The holder of a permit, or any person planning to abandon or close any injection well, including, without limitation, shallow Class V wells such as motor vehicle waste disposal wells, shall notify the director of the intent of the holder or person to abandon or close the injection well at least 30 days, or in the case of a newly drilled injection well at least 5 working days, before the abandonment or closure of the well.

4. Before abandonment, an injection well must be plugged with cement in a manner which will not allow the movement of fluids into or between underground sources of drinking water.

5. All cavities in the well bore not plugged with cement must be filled with heavy drilling fluids in a state of static equilibrium with the weight of the fluid equalized from top to bottom.

6. Upon completion of the procedure for the plugging and abandonment of an injection well, the holder of a permit shall certify to the director that the condition of the permit relating to plugging and abandonment has been satisfied.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.924 When well is deemed abandoned. An injection well with casing shall be deemed to be abandoned if its use has been discontinued for at least 1 year. An injection well in which a casing has not been run and for which drilling operations have ceased for at least 30 days shall also be deemed to be abandoned. Any other well shall be deemed abandoned if its use has been discontinued for at least 1 year or if it is in such disrepair that it cannot be used for its intended purpose.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42775)

NAC 445A.925 Plugging of well determined to be abandoned.

1. If the director determines that a well is abandoned, he may order it to be plugged in accordance with the requirements of the approved plan for abandonment. If no plan for abandonment has been approved, the director may order the well plugged in a manner which will prevent movement of any injected fluid or fluid in the formation.

2. In the case of a temporarily idle injection well or an unfinished injection well, the director may not require that the well be plugged if the applicant or holder of the permit shows:

(a) Good cause why it should not be deemed abandoned and plugged; and

(b) That the injection well can be maintained in a manner so as to prevent any degradation of the waters of the state.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4278)

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